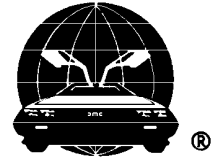


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## DeLorean Owners Association Regional Chapter 41



August 4, 1996

### **Happenings**

by Knut Grimsrud

In addition to my own, three cars showed up for the tech session and BBQ held at my home.

Unfortunately/fortunately, aside from my own car, none required any immediate service that we could tackle on the spot. I offered to break a few things on the others' cars so they could conduct some repairs with the assistance of our service expert Chris Meyers, but everyone declined.



Yours truly conducting preventive maintenance on the DeLorean fuel system.

As promised in the last issue, I replaced the fuel pump boot and cover seals. These are the culprits in fuel system contamination usually associated with improper storage. On my car, the fuel pump boot was clearly starting to deteriorate and the cover seal was as hard as a rock and had to be cut off the top of the pump. My pump was also showing signs of damage due to the poor seal the boot and cover seal made and was markedly pitted by corrosion. Fortunately, Chris happened to bring a spare, so I replaced it as well.

After having gone through the exercise myself and seeing the deterioration firsthand, I would

recommend that you examine your fuel pump boot and associated seals after your car has been stored.



### **Message From Your Coordinator**

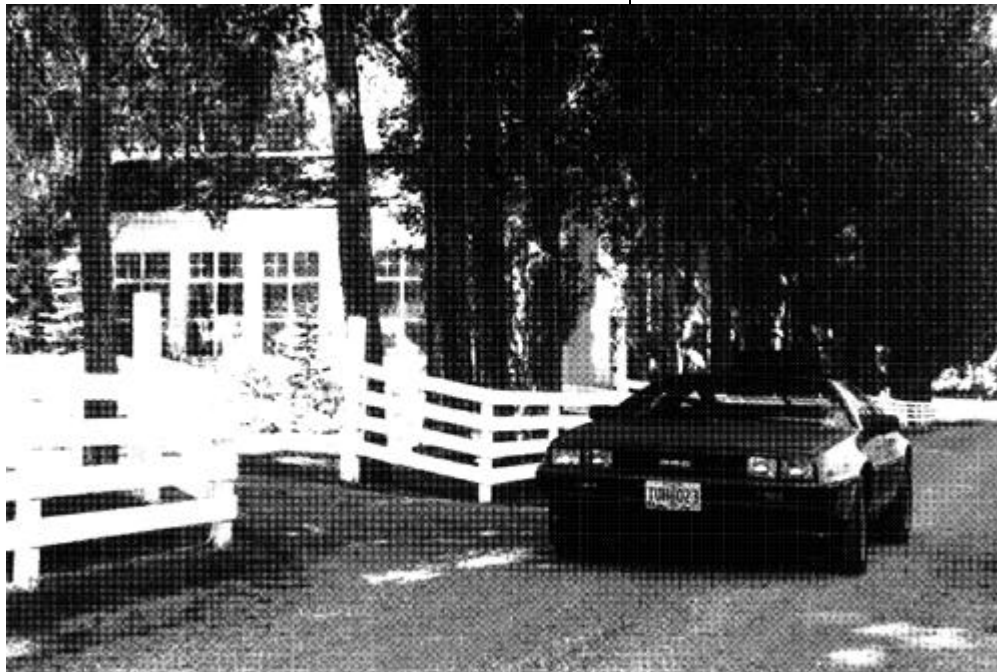
It has been a while since the last time I wrote, and so much has happened since then. Most notably (for me), I recently got married and consequently some of my attention has been diverted from the club. I hope to get things back on track again now that things are settling down a bit.

We are still in need of a new events coordinator. If you are interested, please give me a call.

## Cruising

by Knut Grimsrud

"You might call that a *DeLorean* down there in the states, but up here in Canada we call it a *Bricklin!*" "Those doors are really *cool*. Did you put those on yourself?" Some of the things you hear while cruising in your DeLorean! I had the pleasure of taking my DeLorean on a road trip through the Olympic peninsula to Victoria B.C. for my honeymoon. On pleasure trips like this, the DeLorean truly shines as a "grand touring" car, but you still have to put up with some strange comments.



DMC at Manor Farm Inn in Poulsbo. The bed & breakfast was first class.

In order to accommodate sufficient luggage for my wife and me for the week long trip, I had fitted the luggage rack to my car. The luggage rack was an optional dealer accessory and is original DeLorean equipment (mine came in the original DMC packaging). I am particularly pleased with the rack which has some exceptional design features. The rack is fastened via four mountings that are attached to the lip of the rear quarter panels underneath the rubber stripping that the sides of the louver rest on. The mounts flip down and out of sight when the rack is not in

use and flip back up for mounting the rack which is readily attached in under 30 seconds.

Installation of the rack is not particularly difficult, but be advised that following the included instructions may not yield the best results. For best results, assemble the rack and place it on the back of your car. Test fit and square the rack and mark the holes before drilling the requisite mounting holes. My father's advice of "measure twice, drill once" is a good rule to go by when drilling holes in your precious stainless panels.

The rack easily accommodates a large suitcase which is strapped to the rack. A little experimentation with the strapping technique was required in order arrive at a vibration free configuration.

Thereafter, I often forgot entirely the rack and suitcase were even attached.

Surprisingly, having a suitcase strapped to the back does not

obscure rear visibility like one would think. The design of the rack is such that attached items are held slightly above the louver allowing visibility underneath it. Neither the rack nor the suitcase are even visible in the rearview mirror and I often found myself craning my neck to see if the rack and suitcase were even still attached.

I discovered two drawbacks with the luggage rack. First, since the rack attaches over the louver, access to the engine compartment requires removal of the rack first. If you check your engine fluids before your trip, this should not be a serious problem since you should seldom

require access to the engine compartment provided your car is in good condition. The second drawback is that since the luggage sits slightly above the streamlined form of the car, airborne bugs tend to flow over the windshield and impact on the leading edge of the suitcase. This was slightly noticeable for the leg of our journey that took us through the rain forest, but otherwise was not a major factor.

The trip started at the Heathman hotel in downtown Portland where the valets argued over who got to retrieve my car when I asked for it. The valet took pleasure in pulling up but was not of much assistance in getting us on our way as he was more interested in the car than in loading luggage.

Two hours into the trip my speedometer quit and I admit I got a few second thoughts on taking my 100,000 mile old DeLorean on a 1800 mile road trip for a honeymoon. Spending your honeymoon repairing your car on the road sounds like a great way to an early divorce. I drive my car a lot, and the lack of a speedometer did not bother me much, although it was a nuisance. The tachometer makes a pretty good speedometer if you are familiar enough with your car to know what RPM corresponds to what cruising speed.

After returning I discovered that the failed speedometer was fortunately not due to a failed angle drive (the most common cause of speedometer failure and wholly preventable with proper maintenance), but due to a failed lower speedometer cable. The angle drive should receive regular lubrication with

each oil change and the speedometer cable should occasionally be checked/lubed as well. Specialty Automotive in Olympia sells teflon lined speedometer cables that are significantly better than the originals, should you ever need one.

I am happy to report that the car performed flawlessly the entire rest of the trip. I was surprised at the amount of interest in the car in Canada -- it drew a crowd nearly everywhere we went and the interest was much higher than other areas I have explored. It is not surprising that a series of the DMC was produced for the Canadian market ('83 DeLoreans with a VIN in the 17000 range were built for the Canadian market and featured a speedometer calibrated in km/h and less stringent emissions controls).

One humorous event occurred on the ferry from Port Angeles to Victoria. The loading personnel are quite efficient and pack the ferry based on techniques to maximize the number of cars that can be placed. Getting the impression that the DeLorean was small (it is *small*, but not necessarily *narrow*) we were relegated to the outside lane near the end of the ferry (where the lanes narrow with the curvature of the ship). We happily parked the car in the area designated, relieved that at least one side of the car would not



My DMC wedged against the side of the ferry to Victoria.

receive any door dings since it was up against the side of the ship. My wife and I got a good laugh when we discovered that she could not open her door because we were squeezed so close to the wall. She performed an amazing contortionist feat and got out on my side instead.

may be problematic should you have a breakdown on the road.



On top of the world! Hurricane ridge in the Olympic National Forest.

After cruising around the various sights on Vancouver island, we discovered how cheap gasoline is in the US. A half tank of gasoline cost me \$22 Canadian. My advise is to ensure you have topped off your tank with cheap US gasoline before getting on the ferry. Fortunately, the DeLorean is quite fuel efficient, especially when cruising in fifth gear on the freeway.

In all, we had a wonderful experience taking the DeLorean on an extended road cruise. The trip was comfortable and I found myself free of the kind of fatigue typically associated with longer road trips. With the addition of my new luggage rack, I hope to enjoy more trips like it. A word of caution -- every trip will not be as trouble free as mine. If you do not drive your car regularly or do not feel comfortable with its mechanics, a trip like mine may not be a good experience. Obtaining DeLorean parts and qualified service

### Contributing Articles

This issue has no contributing articles. Occasionally I will solicit articles from qualified people I know, but unsolicited contributions would be most welcome. Contributing to the Chapter 41 newsletter does not require that you be an expert in any particular field, just that you enjoy the DMC and have some interesting experiences to share with other chapter members.

Articles should be sent directly to me and I would be happy to return any photos you include.

## **Tech Notes**

by Knut Grimsrud

The next series of newsletters will cover restoration of the front suspension of my car. Since I am not much of a mechanical expert, I will likely stumble across the same problems and issues you would encounter performing the work, so you should fairly readily be able to follow along. After 100,000 miles I felt it was time to perform some service on the front suspension including bearing replacement, tie-rod end replacement, ball joint replacement, and bushing replacement. While I have it all apart I will also lower the front end a couple inches by either cutting the springs or by replacing them with some shorter ones. In essence, I will be replacing everything that moves or wears in the front suspension in addition to lowering the front of the car.

### **Basic Procedures**

I raise and lower my car frequently for various maintenance and cleaning tasks and have discovered a few things that could save you some trouble. Although I have never had this happen, I have been in contact with several DeLorean owners who have had their front windshields crack as a result of jacking up their cars. This sounds quite strange, but it is recognized that the torsional (twisting) stiffness of the DeLorean is not very good, and when one jacks up just one corner (usually a front corner) of the car, the twisting motion of the car combined with the large windshield can cause it to crack.

The jack and lug nut wrench supplied with the car are for emergency use and are not suitable for everyday maintenance procedures. If you do much of your own work, invest in a good service jack. Use the jack to lift the entire front (or rear) half of your car instead of just one corner. When lifting half the car, I have found it beneficial to use a wooden beam as a cross member between the jack and the bottom of the car to help distribute the load.

Likewise, the lug wrench should be carried for emergency use and not used for regular maintenance work. The lug nuts on your DMC have a soft steel shell that are easily marred and rounded. I recently replaced all of my lug nuts because they were in such sorry shape that I was afraid I might not get them off anymore. Instead of the lug wrench, invest in a 19mm or ¾" six-

point deep socket and a torque wrench. Both the 19mm and ¾" socket will fit fine, but the 19mm is 0.002" tighter. I could not find the 19mm socket I wanted, so I am using a ¾". Since the nuts have a soft shell, do not use a 12-point socket – they will easily round your nuts – and select a socket deep enough to grab the entire depth of the nut.

According to the service manual, your lug nuts should be tightened to 60 ft/lb – when using a wrench 1 foot long you should tighten with a force of 60 lb. Service stations that attach lug nuts using impact wrenches will often tighten your lugs to nearly twice that, not only making it difficult to get them off should you need to in an emergency situation, but also potentially damaging both the nuts and the studs and hubs themselves. Use a torque wrench when tightening your lug nuts and tighten them to the proper 60 ft/lb.

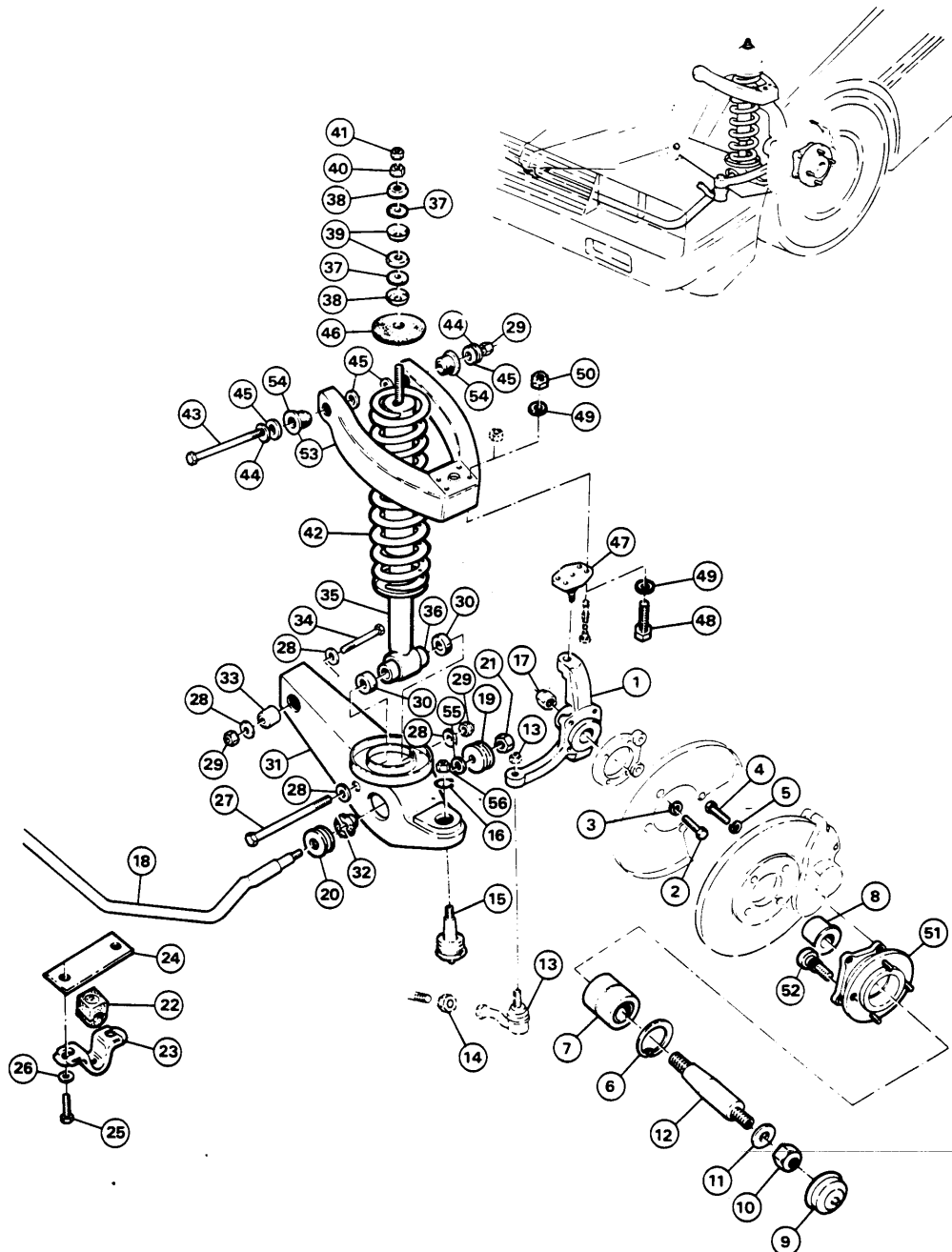
Start the job by jacking up the front half of the car and resting your car on jack stands. I usually place the jack stands at the reinforced emergency-jack locations immediately behind the front wheels. In the interest of safety, I do not recommend that you work on a car being supported solely by a jack. Remove the two front wheels and label the tires with chalk (or something else suitable) so you can get them back on the same side you took them off. Incidentally, I find cleaning the wheels is easier with them off the car, and you might take the opportunity to clean the grime from all the

crevasses with a good wheel cleaner like 'Quicksilver'.

Before proceeding, spray penetrating oil on a couple key nuts and let sit overnight. Spray the two bolts that hold the brake caliper to the steering knuckle (not in figure), the castle nut for the lower ball joint (number 56) and upper ball joint (attaches to number 47 in figure) as well as the nut securing the tie rod end (number 13).

Other nuts that will eventually be removed that you can also lubricate now include the sway bar nut (number 21), shock absorber nut (number 29), lower arm nut (number 29 near lower arm), upper arm nut (also number 29, but near upper arm).

After the nuts have soaked a bit, proceed by first removing the brake caliper. If you are working on the driver's side, remove the speedometer cable



from the angle drive and position out of the way. Remove the two bolts holding the brake caliper to the steering knuckle. These bolts were very tight on my car and required a wrench with a long lever arm. I used my torque wrench to get these off. When loosening very tight nuts, I usually have best luck using a 6-point socket as I sometimes round the nuts with a 12-point wrench. Slide the caliper off the disk brake and suspend with a piece of rope or other implement out of the way. Do not let the brake caliper hang from the brake line.

Remove the hub and rotor assembly. Hub removal requires the use of a 36mm socket. My nearest NAPA dealer was out of 36mm sockets, so I got a 1-7/16" socket instead. Since I don't own a 3/8" drive wrench, I also got a 3/8 - 1/2" adapter for the socket. The bolt holding the hub on (number 10 in the picture) is quite large, so even a socket that is not precisely the right size works OK. The nut is on tight enough that you need a fairly good lever arm to get it loose. I used my torque wrench to unscrew the nut, but if I had had a regular wrench with a handle long enough I would have used it instead. After removing the nut and "D" washer (number 11), the hub and disk assembly is theoretically loose and you can pull it off the car. I had to tap a little with a hammer to get the hub to slide off the stub axle (number 12) on the one side and it slid off without problems on the other. If you need to tap it loose, do not strike the disk rotor itself.

Send the hubs to a machine shop to have the bearings pressed out and new ones pressed in. I have heard of people "tapping" these bearing out, but they are wide enough that such tapping would likely require a sledge hammer. Based on information I got from the DeLorean mailing list (to subscribe send an e-mail message to mikasa@goodnet.com), I found replacement bearings at NAPA. The NAPA part number is GRW120. I had NAPA press the old bearings out and new ones back in. The cost was \$30 for both hub assemblies.

The next article will go into separation of the ball joints from the steering knuckle and will complete

disassembly of the front suspension. Incidentally, the information presented in this article is sufficient for bearing replacement as well as disk rotor replacement.

The procedures that will be outlined in the next article will result in damage to the balljoint and tie rod end boots and should be undertaken only if you are planning on replacing them. I have heard of people separating the joints in question without damage, but if you are not planning on replacing them there is no real reason to separate them in the first place.

## For Sale & Wanted

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*Advertisement of  
DeLorean related items is  
provided as a service to  
Chapter 41 members free  
of charge.*

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*Wanted: DeLorean  
texturing jig and someone  
skilled in its use.*

*Contact Knut H:649-8053  
W:264-8419*

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## Chapter 41 Events Calendar

### ***All British Field Meet***

Date: Sat. Aug. 31  
Portland International Raceway  
Registration information (503) 452-9918

### ***Malibu Car Racing***

Date: Sat. Sept. 14 (or Sun. Sept. 15)  
Malibu car racing w/ Pacific Northwest DeLorean Club  
As this event requires coordination with PNDC, please RSVP to Knut no later than Sept. 7.

### ***Upcoming events (to be finalized)***

Our club is in need of an events coordinator to help plan future events. If you are interested or have a suggestion for an event, please call me.